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EXAMINER	
RODRIGUEZ, PAUL L	

ART UNIT	PAPER NUMBER
2125	9

DATE MAILED: 04/09/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/723,564	FORTH ET AL.	
	Examiner	Art Unit	
	Paul L Rodriguez	2125	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE ____ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *126-174,176-225 and 227-250* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *248-250* is/are allowed.

6)☐ Claim(s) *126-136,138-153,156-174,176-182,185-195,197-211,213-225,227-242 and 244-247* is/are rejected.

7)☒ Claim(s) *137,154,155,183,184,196,212 and 243* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *26 March 2004 and 28 November 2000* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *all*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. The amendment filed 3/26/04 has been received and considered. Claims 126-174, 176-225 and 227-250 are presented for examination.

Information Disclosure Statement

2. The information disclosure statement (IDS) submitted on 12/29/03 is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

3. The initialed copy of the information disclosure statement (IDS) submitted 7/28/03, (paper number 15) has been updated by the Examiner. In the previous office action, the Examiner stated that the IDS submitted 7/28/03 listed the same references as the previous six IDS and duplication was not needed. Upon further review of paper number 15, it was determined that PTO 1449 submitted 7/28/03 provides better descriptions of the references then did the previous six IDS. Because the IDS submitted 7/28/03 incorporates all the previous citations, those references are now initialed by the Examiner and the references on the previous IDS have been lined through. Examiner is providing applicant with updated copies of all the IDS submitted in this application.

Drawings

4. The drawings were received on 3/24/04. These drawings are acceptable for examination.

5. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "102-109, 111, 200, 240, 302, 310, 402, 505, 525, 616-626" etc. have all been used to designate IED. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

6. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters "110, 215, 283, 307, 410, 510, 610, 710, 910, 1010" etc. have all both been used to designate Network. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

7. The examiner has provided a number of examples of the drawing deficiencies in the above, however, the list of deficiencies may not be all inclusive. Applicant should refer to these as examples of deficiencies and should make all the necessary corrections to eliminate the drawing objections.

INFORMATION ON HOW TO EFFECT DRAWING CHANGES

Replacement Drawing Sheets

Drawing changes must be made by presenting replacement figures which incorporate the desired changes and which comply with 37 CFR 1.84. An explanation of the changes made must be presented either in the drawing amendments, or remarks, section of the amendment. Any replacement drawing sheet must be identified in the top margin as "Replacement Sheet" and include all of the figures appearing on the immediate prior version of the sheet, even though only one figure may be amended. The figure or figure number of the amended drawing(s) must not be labeled as "amended." If the changes to the drawing figure(s) are not accepted by the examiner, applicant will be notified of any required corrective action in the next Office action. No further drawing submission will be required, unless applicant is notified.

Identifying indicia, if provided, should include the title of the invention, inventor's name, and application number, or docket number (if any) if an application number has not been assigned to the application. If this information is provided, it must be placed on the front of each sheet and centered within the top margin.

Annotated Drawing Sheets

A marked-up copy of any amended drawing figure, including annotations indicating the changes made, may be submitted or required by the examiner. The annotated drawing sheets must be clearly labeled as "Annotated Marked-up Drawings" and accompany the replacement sheets.

Timing of Corrections

Applicant is required to submit acceptable corrected drawings within the time period set in the Office action. See 37 CFR 1.85(a). Failure to take corrective action within the set period will result in ABANDONMENT of the application.

If corrected drawings are required in a Notice of Allowability (PTOL-37), the new drawings MUST be filed within the THREE MONTH shortened statutory period set for reply in the "Notice of Allowability." Extensions of time may NOT be obtained under the provisions of 37 CFR 1.136 for filing the corrected drawings after the mailing of a Notice of Allowability.

Specification

8. The disclosure is objected to because of the following informalities:

Page 15, Paragraph starting on line 6, states "...application 111 (not shown)..."

Applicant's amendment to the figures now provides reference number 111.

Appropriate correction is required.

9. The examiner has provided an example of the specification deficiencies in the above, however, this may not be all inclusive. Applicant should refer to this as an example of and should make all the necessary corrections to eliminate the specification objections.

Claim Objections

10. Claims 162, 165, 213 and 216 are objected to because of the following informalities:

11. Claims 162, 165, 213 and 216 are objected to and could be considered indefinite because it is unclear whether the phrase contained in the parenthesis "(watt-hour)" is part of the claimed subject matter or not. As argued by applicant, the term "watt-hour" is used to further define elements of the claim and is included for the purpose of clarity. It is the Examiners position that because the phrase is used to further define the invention and is included for clarity, the terms "electric meter" and "electric watt-hour meter" could be considered as different limitations, therefore the phrase "watt-hour" defines the claim limitation and should not be contained in parenthesis.

Appropriate correction is required.

Claim Rejections - 35 USC § 103

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out

the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

13. Claims 126-128, 149-153, 156-158, 164, 167, 168, 174, 200-211 and 215 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buennagel (U.S. Pat 4,589,075) in view of Sekiguchi et al (U.S. Pat 6,285,917).

Buennagel teaches (claim 126) an electrical power management architecture for managing an electrical power distribution system (abstract) comprising a network (figure 1, col. 3 lines 6-25, connecting R1-12), at least one intelligent electronic device ("IED") (R1-12, M1-14, P1-8, col. 3 lines 6-25), coupled with said electrical power distribution system (M1-14, col. 4 lines 9-26, figure 5), and further coupled with said network (col. 4 lines 13-15), each of said at least one IED operative to implement a power management function in conjunction with a portion of said electrical power distribution system (col. 4 lines 9-26), said power management function operative to respond to at least one power management command and generate power management data (col. 3 lines 26-56, col. 4 lines 9-26), each of said at least one IED comprising a first network interface operative to couple said at least one IED with said network and facilitate transmission of said power management data and receipt of said at least one power management command over said network (reference number 441, col. 4 lines 9-26), said architecture further comprising a power management application coupled with said network and operative to receive and process said power management data from said at least one IED and generate said at least one power management command to said at least one IED to implement said power management function (col. 3 lines 26-56, col. 1 line 47 – col. 2 line 2), said power management application

further comprising a power quality monitoring application (the power management system addresses overall management and control, col. 1 lines 12-22 which addresses peak load problem where power production becomes "inefficient", this inefficiency is considered a power quality issue, Therefore, Examiner considers the central controller as addressing and performing a quality monitoring application), (claim 127) said power management application further comprising a power reliability monitoring application (the power management system addresses overall management and control, col. 1 lines 12-22 which addresses peak load problem, this is also considered a reliability issue, therefore the Examiner considers the central controller as addressing and performing a reliability monitoring application), (claim 128) said power management application further comprising a power outage application (the power management system addresses overall management and control, col. 1 lines 12-22 which addresses peak load problem and specifically addresses power failure or blackout, therefore the Examiner considers the central controller as addressing and performing a outage monitoring application), (claim 149) wherein said power management application further comprises an electric power generation management application (col. 3 lines 30-34), (claim 150) wherein said power management application further comprises a load management application (col. 3 lines 30-35), (claim 151) wherein said load management application is operative to connect and disconnect loads to/from said electrical power distribution system (col. 3 lines 30-35), (claim 152) wherein said load management application is further operative to disconnect loads during high rate periods and connect loads during low rate periods to reduce electrical power costs (col. 2 line 59 – col. 3 line 5), (claim 153) wherein said load management application is further operative to disconnect loads during high demand periods and connect loads during low demand periods to reduce electrical power demand (col. 2 line 59 – col. 3 line 5), (claim 156) wherein said electrical power

distribution system comprises a utility electrical power distribution network (reference number 116), (claim 157) wherein said electrical power distribution system comprises a consumer electrical power distribution network (reference number 116), (claim 158) wherein said network comprises a publicly accessible communications network (paging, col. 7 lines 21-30, col. 1 lines 36-38), (claim 164) wherein said at least one IED comprises an a protection relay (col. 4 lines 27-40, reference number 562), (claim 167) wherein said power management function comprises monitoring at least one electrical power parameter of said portion of said electrical power distribution system (col. 4 lines 9-26), (claim 168) wherein said monitoring comprises monitoring by a supplier of said electrical power (col. 4 lines 27-40), (claim 174) wherein said power management data comprises power consumption data (col. 1 lines 36-38), (claim 200) wherein said power management application further comprises a centralized power management application (col. 3 lines 6-17, central controller 200), (claim 201) wherein said power management application further comprises a distributed power management application (R1-12, M1-14 are distributed and perform power management, considered distributed), (claim 202) wherein said power management application further comprises an application program interface to allow at least one power management application to interface with said electrical power management architecture (col. 2 line 59 – col. 3 line 5), (claim 203) wherein said power quality monitoring application is operative to monitor for degradation of power quality across said electrical power distribution system (sensing a peak load demand, col. 1 lines 12-22, because production becomes inefficient, this is inherent), (claim 204) wherein said power quality monitoring application comprises a local power quality monitoring application on a first of said at least one IED (M1-14) and operative to detect said degradation of power quality on said portion of said electrical power distribution system and report said degradation of power quality

to a second of said at least one IED (R1-12, col. 3 line 24 – col. 4 line 40), (claim 205) wherein said second of said at least one IED is downstream of said first of said at least one IED on said electrical power distribution system (data flows from M to R to 200, considered downstream) and further wherein said degradation of power quality comprises a catastrophic power quality event (blackout, peak load), said first of said at least one IED operative to warn said second of said at least one IED of said catastrophic power quality event (M sends monitor data via R, considered inherent), (claim 206) wherein said power quality monitoring application is operative to detect a fault in said electrical power distribution system (M monitors load, inherent), (claim 207) wherein said power quality monitoring application is operative to correct a fault in said electrical power distribution system (inherent, loads are connected and disconnected), (claim 208) wherein said power quality monitoring application is operative to locate a fault in said electrical power distribution system (M1-14 detect load fault, location of M1-14 are known, locating the fault would be inherent), (claim 209) wherein said power quality monitoring application is operative to isolate a fault in said electrical power distribution system (loads are connected and disconnected, inherent), (claim 210) wherein said power quality monitoring application is further operative to control at least one protection relay coupled with said electrical power distribution system (reference number 562, col. 4 lines 27-40), (claim 211) wherein said power management application further comprises a power distribution system reliability monitoring application (the power management system addresses overall management and control, col. 1 lines 12-22 which addresses peak load problem, this is also considered a reliability issue, therefore the Examiner considers the central controller as addressing and performing a reliability monitoring application) and (claim 215) wherein said at least one IED comprises an a protection relay (col. 4 lines 27-40, reference number 562).

Buennagel fails to teach said power management data further comprising status data representative of a status of said at least one IED.

Sekiguchi et al teaches said power management data further comprising status data representative of a status of said at least one IED (abstract, figure 4, col. 1 lines 13-15, 24-33, col. 4 lines 6-11, col. 6 lines 25-31, col. 11 lines 1-8, col. 20 lines 5-16).

Buennagel and Sekiguchi et al are analogous art because they are both related to power distribution and control.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the status of an intelligent electronic device of Sekiguchi et al in the power network control system of Buennagel because Sekiguchi et al teaches that if an abnormality occurs in the controller, the controller can be quickly restored and the availability of the protection controller can be improved (col. 33 lines 47-56). Also, there is no need to unnecessarily stop protection controllers if it is determined that the fault lies in the transmission line, resulting in enabling to improve the availability of the controller (col. 34 lines 1-13).

14. Claims 129-136, 138-146, 148, 159-163, 165, 169-173, 176-182, 185-195, 197-199, 213, 214, 216, 218, 219, 221-225, 227-242 and 244-247 are rejected under 35 U.S.C. 103(a) as being unpatentable over Buennagel (U.S. Pat 4,589,075) in view of Sekiguchi et al (U.S. Pat 6,285,917) as applied to claims 126-128, 149-153, 156-158, 164, 167, 168, 174, 200-211 and 215 above and further in view of Collins et al (U.S. Pat 6,553,418).

Buennagel as modified by Sekiguchi et al teaches an electrical power management architecture for managing electrical power as recited in claims 126-128, 149-153, 156-158, 164, 167, 168, 174, 200-211 and 215 for the reasons above. Differing from the invention as recited in

claims 129-136, 138-146, 148, 159-163, 165, 169-173, 176-182, 185-195, 197-199, 213, 214, 216, 218, 219, 221-225, 227-242 and 244-247 in that their combined teaching lacks (claim 129-136) securing said power management data and commands from unauthorized access, authenticating secured power management data and commands, (claim 138) wherein said power management application is capable of substantially simultaneously receiving power management data from a plurality of said at least one IED, (claim 139) wherein said power management application comprises a data collection server coupled with said network and operative to receive said power management data, (claim 140) wherein said data collection server is operated by a customer of said electrical power distribution system, (claim 141) wherein said data collection server is operated by a provider of said electrical power distribution system, (claim 142) wherein said power management data is transmitted as electronic mail messages, said data collection server further comprising an electronic mail server, (claim 143-146) wherein said data collection server is further operative to receive said electronic mail messages, hypertext transfer protocol format, data files, extensible markup language format, (claim 148) a revenue meter, peer to peer application, (claim 159) wherein said network comprises a Transport Control Protocol/Internet Protocol ("TCP/IP") based network (claim 160) wherein said network further comprises the Internet (claim 161) wherein said network comprises an intranet, (162) wherein said at least one IED comprises an electric (watt-hour) meter, (claim 163) wherein said at least one IED comprises a revenue meter, (claim 165) wherein said at least one IED comprises a legacy electric (watt-hour) meter and a monitoring and control device coupled with said legacy electric (watt-hour) meter, said monitoring and control device comprising said first network interface, (claim 169) wherein said monitoring comprises monitoring by a consumer of electrical power, (claim 170) wherein said power management function further comprises computing revenue,

(claim 171) wherein said power management function further comprises reporting said computed revenue, (claim 172) wherein said power management function further comprises computing usage, (claim 173) wherein said power management function further comprises reporting said computed usage, (claim 176) wherein said at least one IED further comprises first computer logic including a protocol stack, said protocol stack comprising at least two layers from the group comprising an application layer; a transport layer; a routing layer; a switching layer; an interface layer, (claim 177) wherein said application layer comprises at least one application, said at least one application being operative to punch through a firewall, (claim 178) wherein said application layer comprises an electronic mail application, (claim 179-182) wherein said protocol stack further comprises a security module, (claim 185-188) wherein said application layer comprises an extensible markup language, hypertext transfer protocol, file transfer protocol application, instant messaging protocol, (claim 189) wherein said application layer supports peer to peer communications, (claim 190-192) wherein said protocol stack further comprises simple object access protocol, secure sockets layer, S-HTTP, (claim 193-195, 197-199) wherein said interface layer further comprises Ethernet, dial up modem, cellular modem, Bluetooth, AC power line communications, RF interface, (claim 213) wherein said at least one IED comprises an electric (watt-hour) meter, (claim 214) wherein said at least one IED comprises a revenue meter, (claim 216) wherein said at least one IED comprises a legacy electric (watt-hour) meter and a monitoring and control device coupled with said legacy electric (watt-hour) meter, said monitoring and control device further comprising a network interface coupled with said network, (claim 222) wherein said method further comprises controlling electrical generation systems, (claim 224) wherein said power management data comprises power consumption data, (claim 227) wherein said method further comprises computing at least one of revenue or cost using

tariff/billing data, contained within said at least one power management command, (claim 234, 235) wherein said method further comprises said power management application further comprising a data collection server, (claim 236) wherein said power management application comprises an automated meter reading application, (claim 237) wherein said automated meter reading application further comprises a billing management application, (claim 238-241) wherein said method further comprises billing data, (claim 242) wherein said automated meter reading application further comprises a consumption management application, (claim 244) wherein said method further comprises reducing consumption on said portion of said electrical power distribution system in response to rate changes by said consumption management application, (claim 245, 246) wherein said method further comprises monitoring and tracking costs associated with consumption on said electrical power distribution system by said consumption management application and (claim 247) wherein said power management data comprises at least one power management command to at least one other of said at least one IED.

Collins et al teaches (claim 129-136) securing said power management data and commands from unauthorized access, authenticating secured power management data and commands (col. 8 line 49 – col. 9 line 10 discloses a VPN, this private network is considered by the Examiner to anticipate security of data transmission and to prevent unauthorized access), (claim 138) wherein said power management application is capable of substantially simultaneously receiving power management data from a plurality of said at least one IED (col. 1 lines 53-57), (claim 139) wherein said power management application comprises a data collection server coupled with said network and operative to receive said power management data (reference number 18) (claim 140) wherein said data collection server is operated by a

customer of said electrical power distribution system (col. 2 lines 49-52), (claim 141) wherein said data collection server is operated by a provider of said electrical power distribution system (col. 2 lines 49-52), (claim 142) wherein said power management data is transmitted as electronic mail messages, said data collection server further comprising an electronic mail server (col. 2 lines 58-63, considered mail server) (claim 143-146) wherein said data collection server is further operative to receive said electronic mail messages, hypertext transfer protocol format, data files, extensible markup language format (col. 4 lines 17-21, because this is an Internet network, considered obvious known variations), (claim 148) a revenue meter (reference number 41), peer to peer application (by definition type of communications on essentially equivalent basis, nodes communicate on an equal basis and share resources, Internet considered to be peer to peer), (claim 159) wherein said network comprises a Transport Control Protocol/Internet Protocol ("TCP/IP") based network (col. 4 lines 17-21, reference number 12 is the Internet, known TCP/IP network), (claim 160) wherein said network further comprises the Internet (col. 4 lines 17-21, reference number 12), (claim 161) wherein said network comprises an intranet (VPN 64, known intranet), (claim 162) wherein said at least one IED comprises an electric (watt-hour) meter (reference number 34), (claim 163) wherein said at least one IED comprises a revenue meter (reference number 41), (claim 165) wherein said at least one IED comprises a legacy electric (watt-hour) meter (reference number 16) and a monitoring and control device coupled with said legacy electric (watt-hour) meter, said monitoring and control device comprising said first network interface (col. 3 line 63 - col. 4 line 12), (claim 169) wherein said monitoring comprises monitoring by a consumer of electrical power (inherent to a local meter), (claim 170) wherein said power management function further comprises computing revenue (inherent to a revenue meter), (claim 171) wherein said power management function further comprises

reporting said computed revenue (col. 6 lines 16-22), (claim 172) wherein said power management function further comprises computing usage (col. 6 lines 16-35), (claim 173) wherein said power management function further comprises reporting said computed usage (col. 6 lines 16-35), (claim 176) wherein said at least one IED further comprises first computer logic including a protocol stack, said protocol stack comprising at least two layers from the group comprising an application layer; a transport layer; a routing layer; a switching layer; an interface layer (inherent to Internet protocol and OSI model), (claim 177) wherein said application layer comprises at least one application, said at least one application being operative to punch through a firewall (firewalls are well known and would be obvious in a VPN/Internet architecture, (claim 178) wherein said application layer comprises an electronic mail application ((col. 2 lines 58-63, considered mail server), (claim 179-182) wherein said protocol stack further comprises a security module (col. 8 lines 32-48, inherent and obvious with VPN), (claim 185-188) wherein said application layer comprises an extensible markup language, hypertext transfer protocol, file transfer protocol application, instant messaging protocol, (col. 4 lines 17-21, because this is an Internet network, considered obvious known variations), (claim 189) wherein said application layer supports peer to peer communications (by definition type of communications on essentially equivalent basis, nodes communicate on an equal basis and share resources, Internet considered to be peer to peer), (claim 190-192) wherein said protocol stack further comprises simple object access protocol, secure sockets layer, S-HTTP (obvious to a secure network), (claim 193-195, 197-199) wherein said interface layer further comprises Ethernet, dial up modem, cellular modem, Bluetooth, AC power line communications, RF interface (obvious variations to internet connection), (claim 213) wherein said at least one IED comprises an electric (watt-hour) meter (reference number 34, 16), (claim 214) wherein said at least one IED comprises a revenue meter

(reference number 41), (claim 216) wherein said at least one IED comprises a legacy electric (watt-hour) meter and a monitoring and control device coupled with said legacy electric (watt-hour) meter, said monitoring and control device further comprising a network interface coupled with said network (reference number 16 considered a legacy meter, reference number 34 would be considered non legacy), (claim 222) wherein said method further comprises controlling electrical generation systems (reference number 42), (claim 224) wherein said power management data comprises power consumption data (meter provides consumption data), (claim 227) wherein said method further comprises computing at least one of revenue or cost using tariff/billing data, contained within said at least one power management command (col. 7 line 64 – col. 8 line 9), (claim 234, 235) wherein said method further comprises said power management application further comprising a data collection server (reference number 18), (claim 236) wherein said power management application comprises an automated meter reading application (col. 4 lines 2-21, col. 5 lines 6-18), (claim 237) wherein said automated meter reading application further comprises a billing management application (col. 8 lines 10-20), (claim 238-241) wherein said method further comprises billing data (col. 8 lines 10-20), (claim 242) wherein said automated meter reading application further comprises a consumption management application (col. 8 lines 10-20), (claim 244) wherein said method further comprises reducing consumption on said portion of said electrical power distribution system in response to rate changes by said consumption management application (col. 8 lines 10-20), (claim 245, 246) wherein said method further comprises monitoring and tracking costs associated with consumption on said electrical power distribution system by said consumption management application (col. 8 lines 21-31) and (claim 247) wherein said power management data comprises

at least one power management command to at least one other of said at least one IED (col. 10 line 13-19).

Buennagel as modified by Sekiguchi et al and Collins et al are analogous art because they are both related to control of a power network.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize all the features of Collins et al in the network control system of Buennagel as modified by Sekiguchi et al because Collins et al teaches a energy information and control system that allows various devices to communicate with each other and provides access to utility information on a real time basis and can provide access to consumption statistics for multiple locations located at relatively large distances apart, improving communications and accessibility (col. 1 line 47 – col. 3 line 17).

15. Claims 147, 166, 217 and 220 are rejected under 35 U.S.C. 103(a) as being obvious over Buennagel (U.S. Pat 4,589,075) as modified by Sekiguchi et al (U.S. Pat 6,285,917) and Collins et al (U.S. Pat 6,553,418) and further in view of Granville (U.S. Pat 5,181,026).

While Buennagel as modified by Sekiguchi et al and Collins et al teaches most all of the instant invention as applied to claims 126, 129 and 139 for the reasons above, differing from the invention as recited in claims 147, 166, 217 and 220 in that their combined teaching lacks a phasor processor and/or transducer.

Granville teaches a phasor processor and transducer in a control and management system of a power distribution system (reference number 33, abstract, figure 1B, col. 36 lines 16-22).

Buennagel as modified by Sekiguchi et al and Collins et al and Granville are analogous art because they are both related to power monitoring.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to utilize the phasor transducer and processor of Granville in the control and management system of Buennagel as modified by Sekiguchi et al and Collins et al because Granville teaches monitoring power parameters in which a single line measuring system can measure all power parameters, including phase angle (abstract) and improved phase angle measurement (col. 8 lines 5-35) because if power metering drifts by even a small percent it could cost power companies "megadollars" (col. 3 lines 12-34).

Allowable Subject Matter

16. Claims 248-250 are allowed.

17. Claims 137, 154, 155, 183, 184, 196, 212, and 243 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims as addressed in the previous office action.

18. The reasons for the indication of allowable subject matter were made in the previous office action.

Response to Arguments

19. Applicant's arguments with respect to claims 126-129 and their dependent claims have been considered but are moot in view of the new ground(s) of rejection. In the previous office action the Examiner had indicated that dependent claims 175 and 226 contained allowable

subject matter. Upon further search and consideration by the Examiner additional art was discovered that supports an obvious rejection of the independent claims as recited above.

Regarding the IDS, Examiner appreciates applicants identification of particular cited references that are considered material to the patentability of the pending claims and has further considered those references.

Regarding the drawings. New/amended figures are considered acceptable however minor objections remain, see the above comments.

Regarding the specification. The amendment to the specification corrected the majority of the specification deficiencies however the amendment introduced a new objection as stated in the above office action.

Regarding the claim objections. The amendment corrected most of the claim deficiencies however with regards to claims 162, 165, 213 and 216 the arguments were not persuasive. Applicant argued that the phrase "watt-hour" is required to further define and clarify the claim limitation, therefore Examiner maintains the position that the phrase should not be contained in parenthesis because is would be unclear if the phrase were part of the claim limitation.

Regarding the rejections under 112. The amendment to the claims has corrected the cited deficiencies and the rejections are withdrawn.

Regarding the rejection under 35 U.S.C. 102, the Examiner was able to find a piece of art that taught the amended claim limitation and an obvious type rejection has been presented by the Examiner which was necessitated by the amendment. Rejection under 102 is withdrawn however claims remain rejected.

Regarding the rejection of dependent claims. Applicant argues that the independent claims are allowable over the single reference of Buennagel however the independent claims are

now rejected under Buennagel in view of a modifying reference and the arguments are not persuasive.

Regarding the New claims 248-250. The incorporation of the allowable subject matter presented in claim 137 is acknowledged and the Examiner considers these claims allowable.

Conclusion

20. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Hart (U.S. Pat 6,694,270) – teaches a phasor transducer apparatus.

Novosel et al (U.S. Pat 5,956,220) – teaches a processor that calculates phasor data.

21. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

22. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul L Rodriguez whose telephone number is (703) 305-7399. The examiner can normally be reached on 6:00 - 4:30 T-F.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Leo P Picard can be reached on (703) 308-0538. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Paul L Rodriguez
Examiner
Art Unit 2125

PLR
4/2/04